

TO: City of Baltimore **DATE:** 14 December 2015

FROM: Jason Mumm, Andrew Baker, and Siyuan Rao

SUBJECT: Response to DOJ request regarding inclusion of the City's full service area in the financial capability analysis

At your request, we have evaluated the information necessary to comply with the Department of Justice's (DOJ) request that the City include all of its service area households in its financial capability assessment. The City's financial assessment includes the minimum requirements outlined in the *1997 CSO Guidance for Financial Capability Assessment and Schedule Development* (1997 Guidance) and substantial additional information as permitted and encouraged by USEPA in its June 2012 and November 2014 documents, the *Integrated Municipal Stormwater and Wastewater Planning Approach Framework*, and *Financial Capability Assessment Framework for Municipal Clean Water Act Requirements*, respectively.

Based on our experience and knowledge of the Baltimore financial capability assessment already submitted to USEPA, we estimate that complying with the DOJ request is likely to take several months to complete to the degree of accuracy expected as a normal standard of care. There are a number of reasons for this, all related to the volume of information required and corresponding analyses necessary to produce the required outputs.

In order to provide a comprehensive financial assessment that includes all households in the service area, we will need to know the full costs of service for both its inside-city retail customers as well as the areas served outside the city. The costs of service for retail customers have already been provided to USEPA, but we will need to add the full costs for outside-city customers *and* project those costs forward. Baltimore is only privy to the portion of costs attributable to Baltimore's operations information, some of which extend to the outside-city customers while some do not. In order to comply with the DOJ request, any information gap that would prevent us from calculating a cost per household and residential indicator will need to be obtained, at a minimum, through proper channels involving information requests to neighboring communities.

Akron Experience

To respond to a similar request in the City of Akron, MWH expended approximately 400 consulting hours over the course of seven (7) months between December 2014 and July 2015. The request in Akron's case related to wastewater services only and involved five (5) communities served under wholesale terms. As described above, our efforts included a determination of the full costs of service, present and future, for these five communities. Determining the full costs of service involved:

- Calculating each community's local wastewater system O&M costs from the information provided by the communities. We issued information requests to each community and had to work with them individually to coordinate the responses.
- Determining the existing and proposed future debt service obligations for each community. This required not only obtaining existing debt service schedules, but also forecasting future capital needs for each community and determining an expected level of future debt financing in every case.

- Evaluating the proportionate share of the City's costs to be allocated to each community based on the existing wholesale agreements. A portion of each community's cost of service related to those costs imposed by Akron. Those costs are shared proportionally with the communities based on a series of allocations tied to the wholesale agreements and a separate financial model. Each of the allocations had to be updated with the new information in Akron's proposal to USEPA, and those results had to be reviewed individually with each community.
- Determining the basic cash needs (revenue requirements) for each system. In addition to the O&M costs, Akron costs, and the local debt service obligations, the total costs of service also includes annual cash contributions to reserves and for capital project financing. Also, debt service coverage obligations need to be considered.
- Estimating the end-user rate for service. In order to calculate a residential index, we needed to know the final charge for service to individual households. The individual rates for service are driven by the above factors with the rate of increase in the local system driven independently from the Akron portion. Both had to be projected in order to reach a conclusion.
- Accounting for households correctly. Some of the wholesale communities were provided wastewater treatment service from Akron in addition to similar services from other providers. In some cases, the communities bifurcated their retail charges to reflect those households served from the Akron plant, but other communities did not. Sorting through this additional layer of complication took additional time.

Although the number of consulting hours came to an estimated 400 hours in those seven months, this does not account for the significant time contributed by members of the City of Akron's staff and staff from the wholesale communities. Also, while a 400-hour estimate might imply a 10-week duration, the fact is that gathering the information, reviewing it, analyzing it, and clarifying the results takes more time in order to coordinate schedules, arrange meetings, etc. A significant portion of the seven-month duration was spent waiting for information and/or waiting for the results of necessary meetings.

Our Estimate of the Effort Required for Baltimore to Comply

One of the complications of complying with the information request is the discontinuity of service areas spanning the stormwater, sewer, and water systems, respectively. The service area for stormwater is limited to the City itself, but sewer and water service are extended to neighboring areas encompassing different geographies in each case. Table 1 summarizes the City's services in neighboring areas.

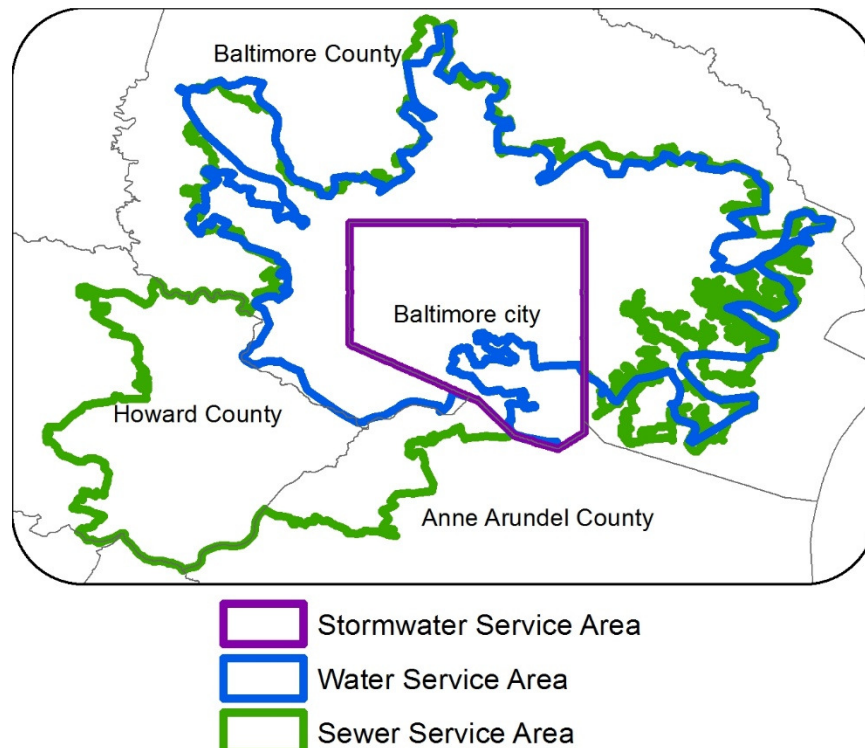
Figure 1 presents a map of the service areas for Water, Sewer, and Stormwater service demonstrating the variance among the three.

Table 1. City Services Provided by Major Areas

Service Type	City of Baltimore	Baltimore County	Anne Arundel County	Howard County
Stormwater	Yes	No	No	No
Sewer	Yes	Portions	Portions	Portions
Water ¹	Yes	Portions	Portions	Portions

Note 1 – The City also provides portions of Carroll County and Harford County with raw water. Carroll County is located approximately west and northwest and Harford County is located east and northeast of Baltimore City.

Figure 1. Overlay of City Service Areas



In order to create a relevant cost per household, we would need to adjust all customers in each of the communities that are a part of the service area to account for their total costs of service for stormwater, water, and sewer combined as was done for Baltimore's recent submittal. Baltimore's operations affect only a portion of costs in the outlying areas, so the challenge here would be similar to that we experienced in Akron except we will need to account for three utility services rather than one. As such, the information and analytical requirements involved are probably at least three times that of our Akron experience.

Given the degree of effort required to comply, it is reasonable to question whether the outcome will be relevant and helpful to EPA's review of the City's latest submittal. In our Akron experience, we found that the final results did not materially change the conclusions reached even though the final financial capability assessment included more households at generally higher income levels. This may or may not bear out in Baltimore like it did in Akron, but it seems probable that the additional effort could have low or no impact on the City's financial capability assessment.